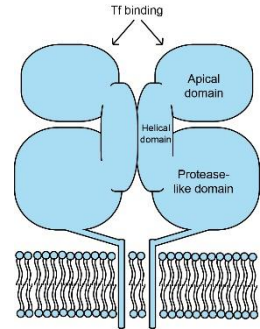


Anti-Transferrin Receptor (TfR)

Catalogue no.: Q52
Clone name: 3B2

Product: VHH directed against Transferrin Receptor / TfR / CD71

Target: The transferrin receptor (TfR, CD71, UniProtKB [P02786](#)) is a type 2 single membrane spanning receptor (95kDa) that plays an important role in erythrocyte development and in the nerve system ¹. TfR functions as a homodimer and regulates iron homeostasis via binding and cellular uptake of iron-loaded transferrin (Tf) via receptor-mediated endocytosis ². The lower pH in endosomes releases the iron from the complex, allowing translocation to the cytoplasm. Upon recycling back to the plasma membrane, the apo-Tf dissociates from the receptor, which can then bind new iron-loaded Tf. In addition, TfR is able to transcytose proteins across endothelium/epithelium and the ectodomain can be secreted as circulating serum TfR ³.



Source: Recombinant monoclonal VHH (*Llama glama*), purified from *S.cerevisiae*. Immunization with HUVEC cells. Phage-display selection on captured ectodomain with total elution.

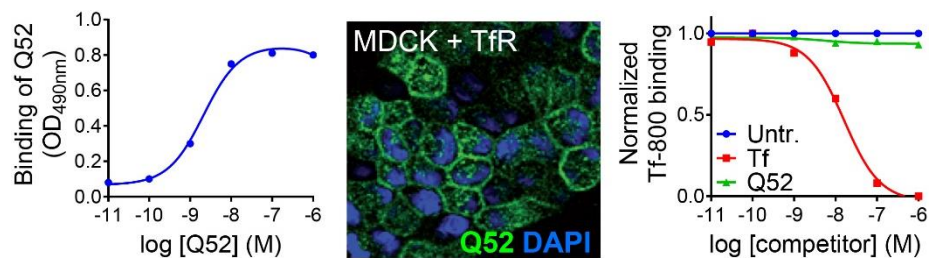
Specificity: Human TfR/CD71.
 Q52 does not compete for Tf binding.

Formulation: Frozen 0.2 µm filtered solution of VHH in PBS.

Storage: Shipped on blue ice. Store at 4°C or -20°C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, IF

Examples:



Binding of Q52 to either TfR ectodomain in ELISA (left) or TfR on transfected MDCK cells in IF (green, middle). Q52 does not compete for binding of Tf^{800CW} to TfR ectodomain (green, right). Homologous displacement of Tf is shown in red.

Products:

Cat. No.	Target	Tag	Label
Q52	TfR	Tagless	No label
Q52c	TfR	C-direct	No label
Q52c-lab	TfR	C-direct	Biotin / NOTA / HiLyte488 / IRDye800CW

References:

- [Schneider et al.](#), (1984) Nature 311, 675-678
- [Ciechanover et al.](#), (1983) J Cel Biochem 23, 107-130
- [Skikne](#), (2008) Am J Hematol 83, 872-875